

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

ENERGY DIVISION

Item 14
Agenda ID 13950 (Rev. 1)
RESOLUTION E-4722
June 11, 2015

R E S O L U T I O N

Resolution E-4722. Approving interim changes proposed by Southern California Edison to its Air Conditioner cycling programs.

PROPOSED OUTCOME:

- Approve SCE Advice Letter 3037-E-A on an interim basis, with modifications.

SAFETY CONSIDERATIONS:

- Demand Response generally can have health and safety implications in that it helps support local and system reliability and grid needs.

ESTIMATED COST:

- None. The funding for these programs was previously approved in D.14-05-025, and SCE's proposed amendments involve no increase in program costs.

By Advice Letter 3037-E filed on May 12, 2014 and supplemental Advice Letter 3037-E-A filed on February 4, 2015.

SUMMARY

This Resolution approves Southern California Edison's (SCE's) Advice Letter (AL) 3037-E-A, with modifications, on an interim basis.

BACKGROUND

On May 12, 2014, SCE voluntarily submitted AL 3037-E as a Tier 2 Advice Letter in order to seek to modify its program tariffs to enable its air conditioning (AC) cycling programs to participate in the California Independent System Operator's (CAISO's) market mechanisms as economic resources but also preserve part of

each resource for local reliability needs. Decisions (D.)11-11-002 and D.13-04-017 authorized SCE to include a price-responsive trigger in its residential and commercial AC cycling programs so that the program is both a reliability and economic resource.

At the request of the Energy Division, on February 4, 2015, SCE submitted Supplemental AL 3037-E-A amending some of the program changes originally proposed in SCE AL 3037-E.

SCE's AC cycling program was originally designed as a reliability-based resource, with enrolled customers having an SCE-installed control device placed on their AC compressor units that allows SCE to cycle the compressor units on and off during events. Customers receive a financial credit on their electric bills each year in return for participation in the program.

NOTICE

Notice of AL 3037-E and AL 3037-E-A was made by publication in the Commission's Daily Calendar. SCE states that copies of AL 3037-E and AL 3037-E-A were distributed in accordance with Section 4 of GO 96-B to the appropriate service lists.

PROTESTS

SCE AL 3037-E was originally filed on May 12, 2014, and was timely protested by the Office of Ratepayer Advocates (ORA) on June 2, 2014.

SCE responded to ORA's protest on June 9, 2014.

On February 4, 2015, SCE filed Supplemental AL 3037-E-A. AL 3037-E-A was timely protested by CAISO on February 17, 2015.

On February 18, 2015, ORA submitted a Late Protest of AL 3037-E-A, which was accepted by Energy Division in accordance with GO 96-B, Rule 7.4.4, on February 18, 2015.

On February 24, 2015, the Center for Energy Efficiency and Renewable Technologies (CEERT) submitted a Late-Filed Response to SCE AL 3037-E-A. On

February 25, 2015, Energy Division accepted CEERT's Late-Filed Response, in accordance with GO 96-B, Rule 7.4.4.

On February 25, 2015, SCE filed a Reply to CAISO and ORA's Protests.

On March 4, 2015, SCE filed a Reply to CEERT's Response.

DISCUSSION

The Commission has reviewed SCE AL 3037-E, ORA's protest, SCE's response, SCE's AL 3037-E-A, CAISO and ORA's protests, CEERT's response, and SCE's replies to CAISO, ORA, and CEERT. We have determined that SCE's request to set an annual maximum and minimum, per service account, on the number of AC cycling event hours for economic dispatch by the California Independent System Operator (CAISO) in its wholesale market is reasonable on an interim basis.

This resolution is divided into two sections:

- 1) A review of SCE AL 3037-E, ORA's protest, and SCE's reply to that protest.
- 2) A review of SCE AL 3037-E-A, CAISO and ORA's protests, CEERT's response, SCE's reply to each, and SCE and ORA's reply comments to Draft Resolution E-4722.

This discussion covers the salient points raised by each party in its filing(s), and the Commission's determination on each.

1. Review of SCE AL 3037-E, ORA's protest, and SCE's reply to that protest

SCE has two AC cycling programs: a residential program, or Domestic Summer Discount Plan (D-SDP) and a commercial program, or General Service - Automatic Power Shift - Enhanced (GS-APS-E). In AL 3037-E, SCE sought to modify the tariffs for these two programs so that they could be bid into CAISO's energy markets, and dispatched by CAISO as an economic resource.

In AL 3037-E, SCE sought to establish an annual limit, per service account, on the number of hours for economic dispatch by CAISO in its wholesale energy market. The proposed annual limit was 30 hours for D-SDP and 15 hours for GS-APS-E. According to SCE, this limit is necessary in order to preserve its

AC cycling programs and avoid opt outs due to customer fatigue while increasing program availability from prior years. Each program would maintain its cumulative limit of 180 hours of annual dispatch, per service account, for system reliability and program evaluation needs.

ORA protested AL 3037-E on the grounds that it was premature and deficient.

ORA's claim of prematurity was twofold. First, it alleged that the uncertainty around the pricing of Demand Response (DR) created by the invalidation of FERC Order 745 by the US Court of Appeals made it imprudent to allow SCE to bid its AC cycling programs into CAISO markets without further clarification from CAISO concerning the Court's actions. Second, ORA claims the AL was premature because bidding into CAISO energy markets would require SCE to be granted certain waivers by CAISO, and these waivers had not yet been approved¹.

ORA's claim of deficiency was also twofold. First, ORA questioned the number of hours that energy prices would be high enough for CAISO to dispatch SCE's AC cycling programs, and thus ORA doubted SCE's concerns over the need for an annual dispatch maximum. Second, ORA claims that SCE did not substantiate whether the 30- and 15-hour limits truly reflect customer fatigue thresholds.

SCE responded to ORA's prematurity claim by stating that SCE's participation in CAISO energy markets should not be significantly affected by the invalidation of FERC Order 745 and that SCE's programs need to be cleared to bid into CAISO energy markets no matter whether CAISO's technical solutions to allow bidding are ready yet or not². We agree with SCE on both points. We have no evidence

¹ SCE sought certain waivers from CAISO to allow bidding of this programs, including allowances for monthly updating of resource re-registration, discrete dispatch, out of market dispatch, after-the-fact outage submissions, and submission of 5-minute interval data. From SCE Data Response to CPUC Energy Division, 2/20/15.

² CAISO has also stated that the main barrier, an automated registration system, should be ready for the 2015 DR season. Email with CAISO 1/7/15.

that the U.S Court of Appeal's invalidation of FERC Order 745³ will affect SCE's ability to bid its AC cycling programs into CAISO markets in the 2015 and 2016 Demand Response years.

SCE responded to ORA's deficiency claim by demonstrating that energy prices reached the necessary threshold for dispatching AC cycling programs for 389 hours during the period of January 1 to May 30, 2014, thus showing that low energy prices are unlikely to hinder the frequency of AC cycling program dispatches. Regarding ORA's claim that SCE had not substantiated whether 30- and 15-hour annual limits truly represented customer fatigue points, SCE states that there are several different ways customers can become fatigued, and that cumulative hours of annual dispatch is only one of these ways⁴. SCE also states that as D-SDP and GS-APS-E continue to evolve as price-responsive programs, SCE will be able to learn more about customer fatigue levels and thus the appropriate levels of energy market participation.

We agree with SCE that low energy prices will not prevent these programs from being called for a sufficient number of hours annually. More importantly,

³ The CPUC along with the Public Services Commission of Maryland and Pennsylvania (Joint States) filed a *Joint State Brief in Support of Petitions for Writ of Certiorari* in the Supreme Court of the United States (U.S. Supreme Court) docket numbers 14-840 and 14-841, consolidated, seeking review of the Decision of the Court of Appeals for the District of Columbia which overturned FERC Order 745. The Joint States provided legal and factual analysis supporting the Petitions for Writ of Certiorari of EnerNOC et al. and the United States Solicitor General regarding the jurisdiction of the FERC over wholesale energy markets and the national importance of opportunities for direct bidding of demand response resources. The Supreme Court granted certiorari on May 4, 2015.

⁴ SCE treated 2014 as a test year of sorts and dispatched 30 hours of D-SDP and 15 hours of GS-APS-E. It saw a significant increase in customer "want offs" from the residential program, up from 4761 through November 2013 to 15,520 through November 2014. SCE believes this increase was related to the increased number of dispatch hours, as well as the dispatch of longer, consecutive events. From SCE email data response to ED, 12/23/14.

Supplemental AL 3037-E-A provides for a minimum number of annual dispatch hours, effectively making this issue moot. We also agree with SCE that more needs to be learned about customer exhaustion points through bidding these programs into CAISO energy markets in order to establish appropriate parameters for market bidding, but see merit in ORA's concern that the 30- and 15-hour annual economic dispatch limits are too low.

2. Review of SCE AL 3037-E-A, CAISO and ORA's protests, CEERT's response, and SCE's reply to each

In its review of the original AL filing, Energy Division staff found conflicting interpretations between SCE and CAISO of Section 39.3.1 of CAISO's Market Power Mitigation Procedures, which concern the withholding of market resources. The language in Section 39.3.1 was interpreted by SCE to mean that the 30- and 15-hour annual economic dispatch limits would also act as a minimum. CAISO disagreed with SCE's interpretation. Thus, Energy Division requested SCE to file a Supplemental Advice Letter that made the 30- and 15-hour annual maximums for economic dispatch act as annual minimum hours of dispatch, as well. SCE complied and filed Supplemental AL 3037-E-A on February 4, 2015.

In its supplemental filing, SCE sought several modifications, listed below.

For D-SDP:

- a) A minimum of 30 hours per year per service account must be dispatched;

For D-SDP, hours triggered under Special Condition 5.c. (at the discretion of SCE's energy operations center in response to high wholesale energy prices) are limited per service account as follows:

- b) A maximum of 30 hours per calendar year may be triggered, inclusive of all events triggered under Special Condition 5 (which includes all event triggers);
- c) Events would be limited to 4 hours per day;

- d) Cumulative event hours would not exceed 6 hours per day;
- e) Events would be limited to no more than 3 consecutive weekdays;
- f) Events would only be called between the hours of 11:00am and 8:00pm, and cannot be called on weekends or SCE holidays.

For GS-APS-E:

- g) A minimum of 15 hours per year per service account must be dispatched;

For GS-APS-E, hours triggered under Special Condition 5.c. (at the discretion of SCE's energy operations center in response to high wholesale energy prices) are limited per service account as follows:

- h) A maximum of 15 hours per calendar year may be triggered, inclusive of all events triggered under Special Condition 5 (which includes all event triggers);
- i) Events would be limited to 4 hours per day;
- j) Cumulative event hours would not exceed 6 hours per day;
- k) Events would be limited to no more than 3 consecutive weekdays;
- l) Events would only be called between the hours of 11:00am and 8:00pm, and cannot be called on weekends or SCE holidays.

A. CAISO's Protest:

In its protest, CAISO asked that the Commission reject SCE AL 3037-E-A on the grounds that SCE seeks to amend existing Resource Adequacy (RA) availability policy via an Advice Letter. CAISO refers to an existing RA guideline⁵ that it interprets to mean that DR programs must be available for 24 hours for every

⁵ The policy in question is in fact a guideline included in the CPUC's 2015 Final Resource Adequacy guide. From p. 21, "the hour limit for the DR bucket was chosen in light of the fact that all DR programs are available a minimum of 24 hours in a month".

month that they are given RA credit, which must then equate to an annual number of hours of availability. In 2015, D-SDP and GS-APS-E were each given 8 months' worth of RA credit⁶. CAISO's interpretation of the RA guideline in this case would mean that SCE's AC cycling programs should be available for 192 hours annually (24 hours/month x 8 months = 192 hours). SCE's AC cycling programs are currently available for 180 hours annually.

CAISO also states that offering 30- and 15-hours of annual economic dispatch is too modest, and that SCE should set the annual dispatch limit to something more "robust and reasonable"⁷.

B. ORA's Protest:

In its protest of AL 3037-E-A, ORA echoes CAISO's concerns about the interpretation of RA availability guidelines, and re-iterates its argument that 30- and 15-hour annual maximums for D-SDP and GS-APS-E are unsubstantiated and unnecessarily low. ORA also agrees with CAISO that an advice letter is the wrong venue in which to make changes that would significantly affect RA value, and that these changes should be addressed in the context of a broader proceeding. Further, ORA highlights the fact that D-SDP and GS-APS-E are subject to different annual dispatch caps (30- and 15-hours, respectively), and asks if this amounts to SCE favoring commercial customers over residential customers.

ORA is also concerned that splitting D-SDP and GS-APS-E into economic and reliability dispatched components effectively splits the program into a Supply Side Resource component (with an economic trigger) and a Load Modifying Resource component (with reliability triggers). ORA states that SCE has still not demonstrated that these program changes need to be made immediately, and

⁶ 2015 Total IOU Demand Response program totals by Program and Local Area – Grossed up for T&D Losses. http://www.cpuc.ca.gov/NR/rdonlyres/E59A6017-B2F8-427F-80DD-7BE795AC7773/0/2015DRProgramtotals_ver3.xls

⁷ CAISO Protest of SCE AL 3037-E-A, p.2.

that more evidence still is needed to establish customer fatigue thresholds. Lastly, ORA recommends that SCE hand-select AC cycling customers into a pilot that could then be bid into CAISO markets, much as PG&E did with its Capacity Bidding Program (CBP).

C. SCE's Response:

In its response to CAISO's and ORA's protest, SCE clarified that the 30- and 15-hour annual dispatch limits are only meant for the economic component of the programs. SCE states the remaining 150- and 165-hours of D-SDP's and GS-APS-E's annual availability will be bid into CAISO's Reliability Demand Response Resource (RDRR) product, ensuring that those hours would still be made available for reliability dispatch.

Both CAISO and ORA recommended in their protests that SCE manage their bid amounts in order to ensure dispatch but avoid encroachment on program availability limits – effectively offering very high market bids when SCE does not desire the program to be called. SCE claims in its response that its proposed means of bidding is very similar to this recommendation, especially as a reliability bid in RDRR requires a minimum bid of 95% of the market cap, or \$950/MW⁸.

SCE also claims that its proposal does not seek to modify RA rules, and that defining RA rules would not be in scope for an Advice Letter. Further, SCE elaborates that several other SCE programs would be affected by CAISO's interpretation of the 24 hour per month RA availability guideline, specifically the Base Interruptible Program (BIP), Agricultural Pumping Interruptible Program (AP-I), and the Aggregator Managed Portfolio (AMP) program.

Lastly, SCE refutes ORA's recommendation of creating a pilot program. SCE states that such an undertaking would involve an unnecessary expenditure of resources and effort, and that it is unclear what a pilot would accomplish.

⁸ CAISO RDRR Tariff Sections 30.6.2.1.2.1 and 30.6.2.1.2.2.

D. Discussion of CAISO's and ORA's Protests

We acknowledge that the 24 hours per month RA availability guideline needs to be clarified, as it has implications for other IOU DR programs – not just SCE's D-SDP and GS-APS-E. However, we also recognize that an advice letter is not the appropriate venue to clarify the RA availability guideline for demand response resources, and thus clarification should come formally in Resource Adequacy proceeding R.14-10-010 or a successor RA proceeding.

We agree with SCE that a separate pilot would be an unnecessary undertaking, but we see merit in ORA's reasoning that SCE's proposed changes to AC cycling program should not be made permanent. It is notable that SCE's proposed program changes present new demand response policy and program issues that have not been vetted in the Demand Response rulemaking. For example, the proposed program changes effectively split a retail DR program into two types of Supply Side Resources, one that is economic (bid into the RDRR Day Ahead energy market) and the other is reliability (bid into the RDRR Real Time emergency market). We agree that these changes and their policy implications require further stakeholder input and deliberation in the Demand Response rulemaking. That said, SCE's proposal would enable it to bid its AC cycling programs into CAISO markets in 2015, which is consistent with our policy directive to enable Supply Resource DR as soon as possible. We conclude that it is reasonable to allow SCE to move forward with its AC cycling program changes, but with slightly higher annual economic dispatch minimum and maximums. We consider these program changes as an experiment, and they are therefore temporary until we can formally vet them in the Demand Response rulemaking. In 2015, the economic dispatch minimums and maximums will be set at 35 hours and 20 hours for D-SDP and GS-APS-E, respectively. In 2016, these minimums and maximums will increase to 40 hours and 25 hours, respectively. We will pay particular attention to whether the lower minimum and maximum on the commercial side is justified. Therefore, we approve SCE AL 3037-E-A on an interim basis for 2015 and 2016 with the new dispatch limits.

E. CEERT's Response to AL 3037-E-A and SCE's Reply:

In CEERT's Response to AL 3037-E-A, it supported SCE's requested modifications, but with additional modifications. The main modification

proposed is a requirement that the effects of the program changes contained in AL 3037-E-A on customer retention and program participation be documented and filed by SCE in R.14-10-010. CEERT further requests that the Commission adopt language encouraging “experiments” such as this to be adopted by all jurisdictional entities while the interim Effective Flexible Capacity (EFC) methodology still applies.

SCE responded that CEERT’s recommended additional reporting requirement is unnecessary, duplicative, and out of scope. We agree with SCE’s position on this matter, and thus reject CEERT’s response to AL 3037-E-A. The data CEERT appears to be seeking regarding customer retention and program participation is already documented in the Demand Response Monthly Reports and in each IOU’s Annual Load Impact Filing. The Monthly Reports are available on the CPUC Demand Response webpage⁹ and the Annual Load Impact Filings are noticed to the service list for the CPUC Demand Response proceeding, R.13-09-011.

F. Reply Comments to Draft Resolution E-4722 by SCE and ORA

In its comments to the Draft Resolution, SCE asked that the Resolution be modified to reflect that SCE plans to bid portions of D-SDP and GS-APS-E into CAISO’s energy markets as a Reliability Demand Response Resource. The Draft Resolution erroneously characterized SCE’s intentions to bid D-SDP and GS-APS-E as a Proxy Demand Resources (PDR). This Resolution has been modified to reflect this change.

SCE also requested a modification of the bullet points used on pp. 6-7 of the Draft Resolution to more clearly reflect the changes proposed in AL 3037-E-A. This Resolution has been modified to reflect those changes.

In its comments on the Draft Resolution, ORA requests that the Resolution order SCE to file a motion in RA proceeding R.14-10-010 to clarify the RA treatment of a program split into economic and reliability components. We decline to order

1. ⁹ www.cpuc.ca.gov/PUC/energy/Demand+Response/

SCE to file a motion in R.14-10-010, but we encourage the parties to this advice letter to raise the issue in that proceeding.

ORA also requests that the annual minimums and maximums for economic dispatch of D-SDP and GS-APS-E be increased by 5 hours in 2015 to 35- and 20-hours, respectively. ORA also requests that these minimums and maximums be raised to 40- and 25-hours in 2016. ORA claims that, since D-SDP and GS-APS-E were dispatched for 35.15 and 20.15 hours, respectively¹⁰, in 2014 that “it is clear that those hourly limits are reasonable and achievable per SCE’s dispatch in 2014.”¹¹ We find ORA’s position to be reasonable, and thereby order a minimum and maximum of 35 and 20 hours of dispatch in 2015 and 40 and 25 hours in 2016 for D-SDP and GS-APS-E, respectively.

Lastly, ORA recommends that SCE be ordered to submit a Cost Effectiveness (C-E) analysis that includes their proposed program changes. While we appreciate ORA’s interest in obtaining cost-effectiveness information on the program, we note that the current DR C-E Protocols would not capture the effects of splitting D-SDP and GS-APS-E into reliability and economic components, and thus would not provide an accurate picture of the programs’ new Cost Effectiveness. We therefore decline to order SCE to submit a C-E analysis on the proposed changes.

COMMENTS

Public Utilities Code section 311(g)(1) provides that this resolution must be served on all parties and subject to at least 30 days public review and comment prior to a vote of the Commission. Section 311(g)(2) provides that this 30-day period may be reduced or waived upon the stipulation of all parties in the proceeding.

The 30-day comment period for the draft of this resolution was neither waived or reduced. Accordingly, this draft resolution was mailed to parties for comments,

2. ¹⁰ SCE Monthly Report for December 2014, Table I-E, SCE Interruptible and Price Responsive Programs, 2014 Event Summary

3. ¹¹ ORA Comments to Draft Resolution E-4722, May 27, 2015, p. 3.

and will be placed on the Commission's agenda no earlier than 30 days from that day.

Draft Resolution E-4722 was issued on May 5, 2015.

SCE and ORA filed comments to the Draft Resolution on May 27, 2015.

FINDINGS

1. SCE voluntarily filed Advice Letter 3037-E in order to propose program changes to its AC cycling programs to allow those programs to be bid into wholesale markets and dispatched by CAISO as an economic resource.
2. We have no evidence that the U.S Court of Appeal's invalidation of FERC Order 745 will affect SCE's ability to bid its AC cycling programs into CAISO markets in the near term. ORA's protest of AL 3037-E is rejected.
3. SCE filed Supplemental AL 3037-E-A in order to establish a minimum number of annual economic dispatch hours, as well as to clarify other dispatch limitations.
4. We recognize the need for the Resource Adequacy availability guidelines for Demand Response resources to be clarified formally in RA proceeding R.14-10-010 or a successor RA proceeding. CAISO's protest of AL 3037-E-A is rejected.
5. CEERT's response to AL 3037-E-A is rejected.
6. SCE's request to establish maximums and minimums of annual economic dispatch for D-SDP and GS-APS-E, respectively, is reasonable on an interim basis for 2015 and 2016.
7. ORA's request to increase SCE's proposed annual dispatch minimums and maximums from 30 and 15 hours for D-SDP and GS-APS-E is reasonable. ORA's protest of AL 3037-E-A is otherwise rejected.

THEREFORE IT IS ORDERED THAT:

1. SCE Advice Letter 3037-E-A is approved on an interim basis for 2015 and 2016, with modifications as ordered in this resolution.
2. SCE will establish annual dispatch minimums and maximums of 35 and 20 hours for D-SDP and GS-APS-E, respectively, for 2015. These minimum and maximums will increase by 5 hours in 2016, to 40 and 25 hours, respectively. SCE shall a Tier 1 advice letter within 10 days of this resolution with the necessary tariff changes to reflect the adopted dispatch requirements.

This Resolution is effective today.

I certify that the foregoing resolution was duly introduced, passed and adopted at a conference of the Public Utilities Commission of the State of California held on June 11, 2015; the following Commissioners voting favorably thereon:

TIMOTHY J. SULLIVAN
Executive Director